

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-7. (Canceled)

8. (Previously presented) The method of manufacturing a liquid crystal display apparatus of claim 19, wherein uniform and low-illuminance exposure is performed exposing the photosensitive resin using one of the first photomask and the second photomask, while uniform and high-illuminance exposure is performed at the step of exposing the photosensitive resin using the other of the first photomask and the second photomask.

9. (Original) The method of manufacturing a liquid crystal display apparatus of claim 8, wherein circular or polygonal regions are irregularly disposed in the first or second photomask and that the total area of the circular or polygonal regions is in a range of from 20% to 40% of the total area of the photomask.

10. (Original) The method of manufacturing a liquid crystal display apparatus of claim 9, wherein the circular or polygonal regions disposed in the first or second photomask are irregularly disposed so that the center-to-center distances between adjoining regions are in a range of from 5 μm to 50 μm .

11. (Previously presented) A method of making a reflective liquid crystal display, the method comprising:

providing a substrate;

applying a photosensitive resin on the substrate;

using a single photomask to form both a) asperities in a first region of the photosensitive resin which do not extend all the way through the photosensitive resin, and b) contact holes in a second region of the photosensitive resin, said contact holes extending all the way through the photosensitive resin;

providing said photomask with light transmitting portions, light intercepting portions, and semi-light transmitting portions, so that different amounts of light exposure are utilized using said photomask in order to form at least one of said asperities and said contact holes;

developing the exposed photosensitive resin;

heat treating the developed photosensitive resin; and

forming a reflective electrode on the heat treated photosensitive resin so that said reflective electrode is in electrical communication with a switching element through at least one of said contact holes.

12. (Previously presented) The method of claim 11, wherein the photosensitive resin is negative, and said exposure includes exposing the photosensitive resin using said photomask when the light transmitting portions and semi-light transmitting portions of the mask are located over said first region of said photosensitive resin, and the light intercepting portions of said photomask are located over said second region of said photosensitive resin.

13. (Previously presented) The method of claim 11, wherein the photosensitive resin is positive, and said exposure includes exposing the photosensitive resin using said photomask

when said light intercepting portions and said semi-light transmitting portions of said photomask are located over said first region of said photosensitive resin, and said light transmitting portion of said photomask is located over said second region of said photosensitive resin.

14. (Previously presented) A method of making a reflective liquid crystal display, the method comprising:

applying a photosensitive resin to a substrate;

forming asperities which do not extend all the way through the resin in a first region of the photosensitive resin by using a first photomask and exposing at least part of the first region using said first photomask;

forming contact holes in a second region of the photosensitive resin using a second photomask different than the first photomask, and exposing at least part of the second region using said second photomask;

developing the exposed photosensitive resin;

heat treating the developed photosensitive resin;

forming a reflective electrode on the heat treated photosensitive resin over asperities so that said reflective electrode is in communication with at least one switching element through at least one of the contact holes; and

wherein exposure amounts using the first and second photomasks are the same.

15-16. (Canceled)

17. (Previously presented) The method of claim 14, wherein the photosensitive resin comprises a positive photosensitive resin, and the method further comprises removing the photosensitive resin when it is left in the second region after the developing.

18. (Canceled)

19. (Previously presented) A method of manufacturing a liquid crystal display apparatus having, on one of a pair of substrates disposed so as to be opposed with a liquid crystal layer therebetween, a reflecting film for reflecting incident light from the other substrate, comprising:

applying a photosensitive resin on said one of the substrates;

in order to form asperities in a first region of the applied photosensitive resin film which do not extend all the way through the photosensitive resin and to form a contact hole in a second region of the applied photosensitive resin film, exposing at least part of the first region with various integrals of exposure amounts using a first photomask so that the photosensitive resin in the first region is left in respective different film thicknesses, and exposing at least part of the second region with an integral of exposure amount different from those for the first region using a second photomask, wherein each of said first and second photomasks comprise both light transmitting portions for transmitting illuminance and light intercepting portions for blocking illuminance from reaching the photosensitive resin so that the asperities and contact hole are formed based upon arrangement of the light transmitting portions and light intercepting portions in the photomasks;

developing the exposed photosensitive resin;

heat-treating the developed photosensitive resin; and

forming a reflecting film on the heat-treated photosensitive resin so that the reflecting film is in electrical communication with a switching element through said contact hole.

20-21. (Canceled)

22. (Previously presented) A method of making a reflective liquid crystal display, the method comprising:

applying a photosensitive resin to a substrate;

forming asperities which do not extend all the way through the resin in a first region of the photosensitive resin by using a first photomask and exposing at least part of the first region using said first photomask;

forming contact holes in a second region of the photosensitive resin using a second photomask different than the first photomask, and exposing at least part of the second region using said second photomask;

developing the exposed photosensitive resin;

heat treating the developed photosensitive resin;

forming a reflective electrode on the heat treated photosensitive resin over asperities so that said reflective electrode is in communication with at least one switching element through at least one of the contact holes; and

wherein each of said first and second photomasks comprise both light transmitting portions for transmitting illuminance and light intercepting portions for blocking illuminance from reaching the photosensitive resin so that the asperities and contact hole are formed based

upon arrangement of the light transmitting portions and light intercepting portions in the photomasks.

23. (Currently amended) The method of claim 22, wherein uniform and low-illuminance exposure is performed so as to expose the photosensitive resin using the first photomask, while ~~uniformed~~ uniform and higher illuminance exposure is performed so as to expose the photosensitive resin using the second photomask.

24. (Previously presented) The method of claim 22, wherein the photosensitive resin comprises a positive photosensitive resin, and the method further comprises removing the photosensitive resin when it is left in the second region after the developing.

25. (Previously presented) The method of claim 22, wherein uniform and low-illuminance exposure is performed so as to expose the photosensitive resin using the second photomask, while uniform and higher illuminance exposure is performed so as to expose the photosensitive resin using the first photomask.

26. (Previously presented) A method for fabricating a reflection type liquid crystal display, comprising steps of:

forming a switching element having a source, a drain, and a gate on an insulation substrate;

depositing a photosensitive insulation film to a first thickness on the insulation substrate;

performing a first exposure using a first mask including a light blocking portion and a light transmitting portion such that a first portion of the photosensitive insulation film is exposed for forming a contact hole proximate the drain;

performing a second exposure using a second mask including a light blocking portion and a light transmitting portion such that a second portion of the photosensitive insulation film is exposed to a lesser amount of radiation than was the first portion in the first exposure;

developing and removing the first exposed portion and the second exposed portion of the photosensitive insulation film;

heating the photosensitive insulation film; and

forming a reflection electrode on a selected portion of the photosensitive insulation film.

27. (Previously presented) A method for fabricating a liquid crystal display, the method comprising:

forming a transistor comprising a source, a drain, and a gate on a substrate;

depositing a photosensitive insulation film on the substrate;

performing a first exposure using a first mask including a light blocking portion and a light transmitting portion such that a first portion of the photosensitive insulation film is exposed for forming a contact hole proximate the drain;

performing a second exposure using a second mask including a light blocking portion and a light transmitting portion such that a second portion of the photosensitive insulation film is exposed to a lesser amount of radiation than was the first portion in the first exposure;

developing and removing the first exposed portion and the second exposed portion of the photosensitive insulation film;

heating the photosensitive insulation film; and
forming a reflection electrode on a selected portion of the photosensitive insulation film
on the substrate.

28. (Previously presented) A method for fabricating a liquid crystal display, the method comprising:

depositing a photosensitive insulation film on a substrate;
as part of forming a contact hole which extends all the way through the photosensitive insulation film, exposing part of the photosensitive insulation film using a first mask including a light blocking portion and a light transmitting portion;
as part of forming asperities in a surface of the photosensitive insulation film which do not extend all the way through the photosensitive insulation film, exposing part of the photosensitive insulation film using a second mask including a light blocking portion and a light transmitting portion, wherein exposures using the first mask and the second mask, respectively, are of different exposure amounts;
developing and removing parts of the photosensitive insulation film so as to form at least the contact hole and the asperities in the photosensitive insulation film;
heating the photosensitive insulation film; and
forming a reflection electrode on a selected portion of the photosensitive insulation film on the substrate, so that the reflection electrode is located over at least some of the asperities and is in electrical communication with the transistor via the contact hole.

29. (Previously presented) The method of claim 28, wherein the photosensitive insulation film comprises a positive photosensitive resin.

30. (Previously presented) The method of claim 28, wherein the photosensitive insulation film comprises a negative photosensitive resin.

31. (Previously presented) The method of claim 28, wherein the first mask includes a plurality of light blocking portions.

32. (Previously presented) The method of claim 28, wherein the first mask includes a plurality of light transmitting portions.

33. (Previously presented) The method of claim 28, wherein the first and second masks are used to form a plurality of contact holes and a plurality of asperities in the photosensitive insulation film.

34. (Previously presented) The method of claim 28, wherein the first exposure provides an exposure amount of from 20 mj to 100 mj, and wherein the second exposure provides an exposure amount of from 160 mj to 500 mj.

35. (Previously presented) The method of claim 28, wherein the steps are performed in the order in which they are recited.

36. (Previously presented) The method of claim 28, wherein center-to-center distances between adjoining light transmitting portions of the second mask are in a range of from 5 to 50 μm .

37. (Previously presented) The method of claim 28, wherein the display comprises a transmissive/reflective liquid crystal display.

38. (Currently amended) The method of claim 28, wherein the exposure using the second mask exposure is performed prior to the ~~first~~ exposure using the first mask.

39. (Currently amended) A method for fabricating a liquid crystal display, the method comprising:

depositing a photosensitive insulation film on a substrate;

as part of forming at least one contact hole which extends all the way through the photosensitive insulation film, exposing part of the photosensitive insulation film using a first mask including a light blocking portion and a light transmitting portion;

as part of forming asperities in the photosensitive insulation film which do not extend all the way through the photosensitive insulation film, exposing part of the photosensitive insulation film using a second mask including a light blocking portion and a light transmitting portion, wherein exposures using the first mask and the second mask, respectively, are of different exposure amounts;

developing and removing parts of the photosensitive insulation film so as to form the at least one contact hole which extends all the way through the photosensitive insulation film as well as the asperities; and

forming at least a first reflection electrode on a selected portion of the photosensitive insulation film, so that the first reflection electrode is located over at least some of the asperities and is in electrical communication with a ~~the~~ transistor via one of the at least one contact hole.

40. (Previously presented) The method of claim 39, wherein the photosensitive insulation film comprises a positive photosensitive resin.

41. (Previously presented) The method of claim 39, wherein the photosensitive insulation film comprises a negative photosensitive resin.

42. (Previously presented) The method of claim 39, wherein the first mask includes a plurality of light blocking portions.

43. (Previously presented) The method of claim 39, wherein the first mask includes a plurality of light transmitting portions.

44. (Previously presented) The method of claim 39, wherein the first and second masks are used to form a plurality of contact holes and a plurality of asperities in the photosensitive insulation film.

45. (Currently amended) The method of claim 39, wherein exposure using the first mask exposure provides an exposure amount of from 20 mj to 100 mj, and wherein the exposure using the second mask exposure provides an exposure amount of from 160 mj to 500 mj.

46. (Previously presented) The method of claim 39, wherein the steps are performed in the order in which they are recited.

47. (Previously presented) The method of claim 39, wherein center-to-center distances between adjoining light transmitting portions of the second mask are in a range of from 5 to 50 μm .

48. (Previously presented) The method of claim 39, wherein the display comprises a transmissive/reflective liquid crystal display.

49. (Currently amended) The method of claim 39, wherein the exposure using the second mask exposure is performed prior to the exposure using the first exposure mask.

50. (Previously presented) A method for fabricating a reflection type liquid crystal display, comprising steps of:

forming a switching element having a source, a drain, and a gate on an insulation substrate;

depositing a photosensitive organic insulation film to a first thickness onto the insulation substrate;

performing a first exposure using a first mask such that the photosensitive organic insulation film on a portion proximate the drain is completely exposed;

performing a second exposure using a second mask such that the photosensitive organic insulation film is exposed to a depth shallower than that of the first exposure;

developing and removing the first exposed portion and the second exposed portion;

heating the photosensitive organic insulation film; and

forming a reflection electrode onto a selected portion of the photosensitive organic insulation film.

51. (Previously presented) The method of claim 50, wherein the first and second exposures comprises different exposure amounts.

52. (Previously presented) The method of claim 26, wherein the photosensitive insulation film is organic.

53. (Previously presented) The method of claim 27, wherein the photosensitive insulation film is organic.

54. (Previously presented) The method of claim 28, wherein the photosensitive insulation film is organic.

55. (Previously presented) The method of claim 39, wherein the photosensitive insulation film is organic.

56. (Previously presented) The method of claim 26, wherein circular or polygonal shaped regions are randomly disposed in the second mask.

57. (Previously presented) The method of claim 26, wherein the second mask has adjoining circular or polygonal shaped regions and the center-to-center distances between the adjoining circular or polygonal shaped regions is from 5 to 50 μm .

58. (Previously presented) The method of claim 26, wherein the second mask has adjoining circular or polygonal shaped regions and the total area of the circular or polygonal shaped regions in the second mask is more than 20% of the total area of the second mask.

59. (Previously presented) The method of claim 26, wherein the second mask has adjoining circular or polygonal shaped regions and the total area of the circular or polygonal shaped regions in the second mask is less than 40% of the total area of the second mask.

60. (Previously presented) The method of claim 26, wherein the second mask has adjoining circular or polygonal shaped regions and the total area of the circular or polygonal shaped regions in the second mask is from 20% to 40% of the total area of the second mask.

61. (Previously presented) The method of claim 26, wherein the second mask has adjoining circular or polygonal shaped regions and the total area of the circular or polygonal

shaped regions in the second mask is less than 40% and more than 20% of the total area of the second mask.

62. (Previously presented) The method of claim 26, wherein the second mask has adjoining circular or polygonal shaped regions and the total area of the circular or polygonal shaped regions in the second mask is 30% of the total area of the second mask.

63. (Previously presented) The method of claim 26, wherein the thickness of the photosensitive resin is from 1 to 5 μm .

64. (Previously presented) The method of claim 58, wherein the thickness of the photosensitive resin is 3 μm .

65. (Previously presented) The method of claim 59, wherein the thickness of the photosensitive resin is 3 μm .

66. (Previously presented) The method of claim 60, wherein the thickness of the photosensitive resin is 3 μm .

67. (Previously presented) The method of claim 62, wherein the thickness of the photosensitive resin is 3 μm .

68. (Previously presented) The method of claim 26, wherein the photosensitive resin is a negative photosensitive resin, and wherein the lesser amount of radiation is an exposure amount such that cross-linking of the photosensitive resin does not sufficiently progress in the negative photosensitive resin and resin remaining after said developing is more than 0% and less than 50% of the thickness of the resin before said developing.

69. (Previously presented) The method of claim 26, wherein the photosensitive resin is a negative photosensitive resin, and wherein the lesser amount of radiation is an exposure amount such that cross-linking of the photosensitive resin does not sufficiently progress in the negative photosensitive resin and resin remaining after said developing is at least 10% and less than 50% of the thickness of the resin before said developing.

70. (Previously presented) The method of claim 26, wherein the photosensitive resin is a positive photosensitive resin, and wherein the lesser amount of radiation is an exposure amount such that solubilization of a sensitizer that restrains dissolution of the resin in developing solution used in said developing is not sufficiently performed in the positive photosensitive resin and resin remaining after said developing is 0% or more and less than 50% of the thickness of the resin before said developing.

71. (Previously presented) The method of claim 26, wherein the photosensitive resin is a positive photosensitive resin, and wherein the lesser amount of radiation is an exposure amount such that solubilization of a sensitizer that restrains dissolution of the resin in developing solution used in said developing is not sufficiently performed in the positive photosensitive resin

and resin remaining after said developing is from 10% to 50% of the thickness of the resin before said developing.

72. (Previously presented) The method of claim 27, wherein circular or polygonal shaped regions are randomly disposed in the second mask.

73. (Previously presented) The method of claim 27, wherein the second mask has adjoining circular or polygonal shaped regions and the center-to-center distances between the adjoining circular or polygonal shaped regions is from 5 to 50 μm .

74. (Previously presented) The method of claim 27, wherein the second mask has adjoining circular or polygonal shaped regions and the total area of the circular or polygonal shaped regions in the second mask is more than 20% of the total area of the second mask.

75. (Previously presented) The method of claim 27, wherein the second mask has adjoining circular or polygonal shaped regions and the total area of the circular or polygonal shaped regions in the second mask is less than 40% of the total area of the second mask.

76. (Previously presented) The method of claim 27, wherein the second mask has adjoining circular or polygonal shaped regions and the total area of the circular or polygonal shaped regions in the second mask is from 20% to 40% of the total area of the second mask.

77. (Previously presented) The method of claim 27, wherein the second mask has adjoining circular or polygonal shaped regions and the total area of the circular or polygonal shaped regions in the second mask is less than 40% and more than 20% of the total area of the second mask.

78. (Previously presented) The method of claim 27, wherein the second mask has adjoining circular or polygonal shaped regions and the total area of the circular or polygonal shaped regions in the second mask is 30% of the total area of the second mask.

79. (Previously presented) The method of claim 27, wherein the thickness of the photosensitive resin is from 1 to 5 μm .

80. (Previously presented) The method of claim 74, wherein the thickness of the photosensitive resin is 3 μm .

81. (Previously presented) The method of claim 75, wherein the thickness of the photosensitive resin is 3 μm .

82. (Previously presented) The method of claim 76, wherein the thickness of the photosensitive resin is 3 μm .

83. (Previously presented) The method of claim 78, wherein the thickness of the photosensitive resin is 3 μm .

84. (Previously presented) The method of claim 27, wherein the photosensitive resin is a negative photosensitive resin, and wherein the lesser amount of radiation is an exposure amount such that cross-linking of the negative photosensitive resin does not sufficiently progress and resin remaining after said developing is more than 0% and less than 50% of the thickness of the negative photosensitive resin before said developing.

85. (Previously presented) The method of claim 27, wherein the photosensitive resin is a negative photosensitive resin, and wherein the lesser amount of radiation is an exposure amount such that cross-linking of the negative photosensitive resin does not sufficiently progress so that resin remaining after said developing is at least 10% and less than 50% of the thickness of the negative photosensitive resin before said developing.

86. (Previously presented) The method of claim 27, wherein the photosensitive resin is a positive photosensitive resin, and wherein the lesser amount of radiation is an exposure amount such that solubilization of a sensitizer that restrains dissolution of the positive photosensitive resin in developing solution used in said developing is not sufficiently performed so that resin remaining after said developing is 0% or more and less than 50% of the thickness of the positive photosensitive resin before said developing.

87. (Previously presented) The method of claim 27, wherein the photosensitive resin is a positive photosensitive resin, and wherein the lesser amount of radiation is an exposure amount such that solubilization of a sensitizer that restrains dissolution of the positive photosensitive

resin in developing solution used in said developing is not sufficiently performed so that resin remaining after said developing is from 10% to 50% of the thickness of the positive photosensitive resin before said developing.

88. (Previously presented) The method of claim 28, wherein the second mask has adjoining light blocking portions, and wherein the center-to-center distances between the adjoining light blocking portions is from 5 to 50 μm .

89. (Previously presented) The method of claim 28, wherein the second mask has adjoining circular or polygonal shaped regions and the total area of the circular or polygonal shaped regions in the second mask is more than 20% of the total area of the second mask.

90. (Previously presented) The method of claim 28, wherein the second mask has adjoining circular or polygonal shaped regions and the total area of the circular or polygonal shaped regions in the second mask is less than 40% of the total area of the second mask.

91. (Previously presented) The method of claim 28, wherein the second mask has adjoining circular or polygonal shaped regions and the total area of the circular or polygonal shaped regions in the second mask is from 20% to 40% of the total area of the second mask.

92. (Previously presented) The method of claim 28, wherein the second mask has adjoining circular or polygonal shaped regions and the total area of the circular or polygonal shaped regions in the second mask is 30% of the total area of the second mask.

93. (Previously presented) The method of claim 39, wherein the second mask has adjoining light blocking portions, and wherein the center-to-center distances between the adjoining light blocking portions is from 5 to 50 μm .

94. (Previously presented) The method of claim 39, wherein the second mask has adjoining circular or polygonal shaped regions and the total area of the circular or polygonal shaped regions in the second mask is more than 20% of the total area of the second mask.

95. (Previously presented) The method of claim 39, wherein the second mask has adjoining circular or polygonal shaped regions and the total area of the circular or polygonal shaped regions in the second mask is less than 40% of the total area of the second mask.

96. (Previously presented) The method of claim 39, wherein the second mask has adjoining circular or polygonal shaped regions and the total area of the circular or polygonal shaped regions in the second mask is from 20% to 40% of the total area of the second mask.

97. (Previously presented) The method of claim 39, wherein the second mask has adjoining circular or polygonal shaped regions and the total area of the circular or polygonal shaped regions in the second mask is 30% of the total area of the second mask.

98. (Previously presented) A method of making a liquid crystal display apparatus including a liquid crystal layer between first and second substrates, a reflecting film provided on the first substrate for reflecting incident light, the method comprising:

applying a positive photosensitive resin on the first substrate;

exposing a first region of the photosensitive resin by using a photomask which has circular or polygonal shaped portions that are in a range of from 20% to 40% of the total area of said photomask, and exposing a second region of the photosensitive resin so that an integral of exposure amount to the second region is higher than an integral of exposure amount to the first region;

forming asperities in the first region by developing the first region, and forming a concave portion in the second region by developing the second region so that the concave portion has a thickness smaller than those of the first region;

heat-treating the developed photosensitive resin; and

forming the reflecting film on the heat-treated photosensitive resin.

99. (Previously presented) A method of making a liquid crystal display apparatus including a liquid crystal layer between first and second substrates, a reflecting film provided on the first substrate for reflecting incident light, the method comprising:

applying a positive photosensitive resin on the first substrate;

exposing a first region of the photosensitive resin by using a photomask which has circular or polygonal shaped portions that are disposed so that center-to-center distances between adjoining circular or polygonal shaped regions are from 5 to 50 μm , and exposing a second

region of the photosensitive resin so that an integral of exposure amount to the second region is higher than an integral of exposure amount to the first region;

forming asperities in the first region by developing the first region, and forming a concave portion in the second region by developing the second region so that the concave portion has a thickness smaller than those of the first region;

heat-treating the developed photosensitive resin; and

forming the reflecting film on the heat-treated photosensitive resin.

100. (Previously presented) A method of making a liquid crystal display apparatus including a liquid crystal layer between first and second substrates, a reflecting film provided on the first substrate for reflecting incident light, the method comprising:

applying a positive photosensitive resin on the first substrate;

exposing a first region of the photosensitive resin by using a photomask which has light blocking portions that are in a range of from 20% to 40% of the total area of said photomask, and exposing a second region of the photosensitive resin so that an integral of exposure amount to the second region is higher than an integral of exposure amount to the first region;

forming asperities in the first region by developing the first region, and forming a concave portion in the second region by developing the second region so that the concave portion has a thickness smaller than those of the first region;

heat-treating the developed photosensitive resin; and

forming the reflecting film on the heat-treated photosensitive resin.

101. (Previously presented) A method of making a liquid crystal display apparatus including, on one of a pair of substrates disposed so as to be opposed with a liquid crystal layer therebetween, a reflecting film for reflecting incident light, the method comprising:

applying a positive photosensitive resin on one of the substrates;

exposing a first region of the photosensitive resin by using a photomask which has light blocking portions that are disposed so that center-to-center distances between adjacent light blocking portions are from 5 to 50 μm , and exposing a second region of the photosensitive resin so that an integral of exposure amount to the second region is higher than an integral of exposure amount to the first region;

forming asperities in the first region by developing the first region, and forming a concave portion in the second region by developing the second region so that the concave portion has a thickness smaller than those of the first region;

heat-treating the developed photosensitive resin; and

forming the reflecting film on the heat-treated photosensitive resin.

102. (Previously presented) A method of making a liquid crystal display apparatus including, on one of a pair of substrates disposed so as to be opposed with a liquid crystal layer therebetween, a reflecting film for reflecting incident light, the method comprising:

applying a negative photosensitive resin on one of the substrates;

exposing a first region of the photosensitive resin by using a photomask which has circular or polygonal shaped portions that are in a range of from 20% to 40% of the total area of said photomask, and exposing a second region of the photosensitive resin so that an integral of

exposure amount to the first region is higher than an integral of exposure amount to the second region;

forming asperities in the first region by developing the first region, and removing the photosensitive resin in the second region by developing the second region;

heat-treating the developed photosensitive resin; and

forming the reflecting film on the heat-treated photosensitive resin.

103. (Previously presented) A method of making a liquid crystal display apparatus including, on one of a pair of substrates disposed so as to be opposed with a liquid crystal layer therebetween, a reflecting film for reflecting incident light, the method comprising:

applying a negative photosensitive resin on one of the substrates;

exposing a first region of the photosensitive resin by using a photomask which has circular or polygonal shaped portions that are disposed so that center-to-center distances between adjacent circular or polygonal shaped portions are in a range of from 5 to 50 μm , and exposing a second region of the photosensitive resin so that an integral of exposure amount to the first region is higher than an integral of exposure amount to the second region;

forming asperities in the first region by developing the first region, and removing the photosensitive resin in the second region by developing the second region;

heat-treating the developed photosensitive resin; and

forming the reflecting film on the heat-treated photosensitive resin.

104. (Previously presented) A method of making a liquid crystal display apparatus including, on one of a pair of substrates disposed so as to be opposed with a liquid crystal layer therebetween, a reflecting film for reflecting incident light, the method comprising:

applying a negative photosensitive resin on one of the substrates;

exposing a first region of the photosensitive resin by using a photomask which has light transmitting portions which collectively have an area of from 20% to 40% of the total area of said photomask, and exposing a second region of the photosensitive resin so that an integral of exposure amount to the first region is higher than an integral of exposure amount to the second region;

forming asperities in the first region by developing the first region, and removing the photosensitive resin in the second region by developing the second region;

heat-treating the developed photosensitive resin; and

forming the reflecting film on the heat-treated photosensitive resin.

105. (Previously presented) A method of making a liquid crystal display apparatus including, on one of a pair of substrates disposed so as to be opposed with a liquid crystal layer therebetween, a reflecting film for reflecting incident light, the method comprising:

applying a negative photosensitive resin on one of the substrates;

exposing a first region of the photosensitive resin by using a photomask which has light transmitting portions that are disposed so that center-to-center distances between adjacent light transmitting portions are in a range of from 5 to 50 μm , and exposing a second region of the photosensitive resin so that an integral of exposure amount to the first region is higher than an integral of exposure amount to the second region;

forming asperities in the first region by developing the first region, and removing the photosensitive resin in the second region by developing the second region;

heat-treating the developed photosensitive resin; and

forming the reflecting film on the heat-treated photosensitive resin.

106. (Previously presented) A method for fabricating a reflection type liquid crystal display, comprising steps of:

forming a switching element having a source, a drain, and a gate on an insulation substrate;

depositing a photosensitive organic insulation film to a first thickness onto the insulation substrate;

performing a first exposure for a first time period using a first mask such that the photosensitive organic insulation film on a portion of the drain is completely exposed;

performing a second exposure for a second time period using a second mask such that the photosensitive organic insulation film is exposed to a depth shallower than that of the first exposure;

developing and removing the first exposed portion and the second exposed portion;

heating the photosensitive organic insulation film; and

forming a reflection electrode onto a selected portion of the photosensitive organic insulation film.

107. (Previously presented) The method of claim 106, wherein the second mask is for an irregularly disposed circle pattern.

108. (New) A method for fabricating a liquid crystal display, the method comprising:
depositing a negative photosensitive insulation film on a substrate;
as part of forming a contact hole which extends all the way through the photosensitive insulation film, exposing part of the negative photosensitive insulation film using a first mask including a light blocking portion and a light transmitting portion;
as part of forming asperities in a surface of the photosensitive insulation film which do not extend all the way through the photosensitive insulation film, exposing part of the negative photosensitive insulation film using a second mask including a light blocking portion and a light transmitting portion, wherein exposures using the first mask and the second mask, respectively, are of different exposure amounts;
developing and removing parts of the negative photosensitive insulation film so as to form at least the contact hole and the asperities in the photosensitive insulation film;
heating the photosensitive insulation film; and
forming a reflection electrode on a selected portion of the photosensitive insulation film on the substrate, so that the reflection electrode is located over at least some of the asperities and is in electrical communication with a transistor via the contact hole.

109. (New) The method of claim 108, wherein the first exposure provides an exposure amount of from 20 mj to 100 mj, and wherein the second exposure provides an exposure amount of from 160 mj to 500 mj.

110. (Previously presented) The method of claim 108, wherein the steps are performed in the order in which they are recited.

111. (New) The method of claim 108, wherein center-to-center distances between adjoining light transmitting portions of the second mask are in a range of from 5 to 50 μm .

112. (New) The method of claim 108, wherein the display comprises a transmissive/reflective liquid crystal display.

113. (New) The method of claim 108, wherein the exposure using the second mask is performed prior to the exposure using the first mask.

114. (New) A manufacturing method for a reflection type liquid crystal display having a reflection film for reflecting light having passed through a liquid crystal layer, the method comprising:

forming a thin film transistor on a substrate;

forming a photosensitive resin film on the thin film transistor;

exposing the photosensitive resin film with a first unit exposure light amount via a first mask;

exposing the photosensitive resin film with a second unit exposure light amount via a second mask;

developing the photosensitive resin film subjected to two exposures thereby forming two types of concaves having different depths; and

forming a film using a reflective material on the photosensitive resin developed to have two types of concaves, thereby forming the reflection film;

wherein the photosensitive resin film constitutes an insulating film, the reflection film is a reflection electrode having a size corresponding to a pixel, and

the reflection electrode is electrically connected to the thin film transistor, and

wherein the first unit exposure light amount is larger than the second unit exposure light amount,

the concave formed using the first mask constitutes a contact hole for electrically connecting the reflection electrode and the thin film transistor, and

the concave formed using the second mask constitutes a concave formed on a surface of the reflection electrode.

115. (New) A manufacturing method according to claim 114, further comprising heating the photosensitive resin film to give edges of the concave a gentler slope after developing the photosensitive resin film.

116. (New) A manufacturing method for a reflection type liquid crystal display having a reflection film for reflecting light having passed through a liquid crystal layer, the method comprising:

forming a thin film transistor on a substrate;

forming a photosensitive resin film on the thin film transistor;

exposing the photosensitive resin film with a first unit exposure light amount via a first mask;

exposing the photosensitive resin film with a second unit exposure light amount via a second mask;

developing the photosensitive resin film subjected to two exposures thereby forming two types of concaves having different depths; and

forming a film using a reflective material on the photosensitive resin developed to have two types of concaves, thereby forming the reflection film;

wherein the photosensitive resin film constitutes an insulating film, the reflection film is a reflection electrode having a size corresponding to a pixel, and

the reflection electrode is electrically connected to the thin film transistor, and

wherein the second unit exposure light amount is larger than the first unit exposure light amount,

the concave formed using the first mask constitutes a concave formed on a surface of the reflection electrode, and

the concave formed using the second mask constitutes a contact hole for electrically connecting the reflection electrode and the thin film transistor.

117. (New) A manufacturing method according to claim 116, further comprising heating the photosensitive resin film to give edges of the concave a gentler slope after developing the photosensitive resin film.

118. (New) A manufacturing method for a reflection type liquid crystal display having a plurality of reflection electrodes for reflecting light having passed through a liquid crystal layer, the method comprising:

forming a lower conductive film on a substrate;
forming a photosensitive resin film on a thin film transistor;
exposing the photosensitive resin film with a first unit exposure light amount via a first mask and exposing the photosensitive resin film with a second unit exposure light amount which is greater than the first unit exposure light amount via a second mask at a different timing;
developing the photosensitive resin film subjected to two exposures to simultaneously form a contact hole and a concave on a surface; and
forming a film using a reflective material on the photosensitive resin film to thereby form the reflection electrodes;
wherein the reflection electrodes connect with the lower conductive film via the contact hole and have a concave on a surface due to the concave of the photosensitive resin film.

119. (New) The manufacturing method according to claim 118, wherein the thin film transistor is formed on the substrate, and the lower conductive film constitutes the thin film transistor.

120. (New) A manufacturing method according to claim 118, further comprising heating the photosensitive resin film to give edges of the concave a gentler slope after developing the photosensitive resin film.

121. (New) A manufacturing method according to claim 118, wherein the exposing the photosensitive resin film with the first unit exposure light amount is performed in advance of the exposing the photosensitive resin film with the second unit exposure light amount.

122. (New) A manufacturing method according to claim 118, wherein the exposing the photosensitive resin film with the second unit exposure light amount is performed in advance of the exposing the photosensitive resin film with the first unit exposure light amount.